

REMARKS

These remarks are responsive to the Office Action mailed on May 15, 2008 (“the Office Action”). The Applicant thanks the Examiner for a careful and thorough examination of the above-referenced Application, as well as the indication of allowable subject matter.

Status of the Claims

At the time of the Office Action, Claims 36-63 were pending and Claims 36-63 being rejected. Claims 36 and 62 are amended herein. Support for these amendments may be found throughout the Specification. No new matter is being submitted. New Claim 64 is added and support is also found in the specification.

35 U.S.C. § 103 Rejections

Examiner has rejected Claims 36-39, 43-47 and 59-63 under 35 U.S.C. §103(a) as being unpatentable over Muller *et al.* (U.S. 4,954,255 – hereinafter “Muller”) in view of Kahler (U.S. 5,888,262 – hereinafter “Kahler”). Applicant has amended Claims 36 and 62 rendering this ground of rejection moot.

In order to render a claim obvious, a combination of references must teach or suggest each and every claim limitation. The Applicant respectfully submits that the cited references, alone or in combination, fail to render the present invention obvious since the cited references: (1) fail to teach every element of the claimed invention and (2) the Examiner’s cited combination would render the proposed device inoperable or the references teach away from one another.

Missing Claim Limitations

The Examiner alleges that Kahler teaches nearly every element of the claimed invention and apparently admits in the last full paragraph of page 4 of the Office Action that where Kahler fails, Muller teaches: (1) increments of spacers comprising facing material increments pairs, (2) engaging and having a common longitudinal axis, (3) which are substantially aligned along the layer of filter media.

Applicant has amended Claims 36 and 62 in order to render this ground of rejection moot. Specifically, Applicant has amended the claims to require that the increments of formed material are an adhesive.

To the contrary, Kahler depicts projections or embossments [13] which are formed of the filter material by an embossing process. Accordingly, the cited material increments or spacer materials [13] are not adhesive materials as claimed but instead are embossments of the filter media. Applicant asserts that the use of such embossment may cause additional pressure drop across the filtering device, which is undesirable in the filtration art, and therefore is undesirable. Accordingly, Applicant asserts that the combination of Muller and Kahler fail to teach every element of the claimed invention. Additionally, Applicant has amended Claim 36 to require that the first side of a pleat flank have an adhesive increment and the second side of the pleat flank have an adhesive increment and wherein adhesive increments of the first side of a pleat flank engage the adhesive increment of a second side of an adjacent pleat flank. Thus adhesive spacers are located on both sides of a pleat. Contrary to the currently claimed invention, Muller also fails to teach or suggest adhesive spacer elements. The spacer elements taught by Muller are flat plastic porous pieces but are not formed of adhesive. Moreover, Muller only teaches spacer increments [6] on a single side of the filter media [5]. This is clearly

shown in Figure 1 in the cutaway area and in Figure 2. Accordingly, not only does Muller fail to teach adhesive increments as claimed, Muller also fails to teach the increments on both sides of a pleat flank. As previously addressed, Kahler also fails to teach the pleat flanks having spacer increments formed of adhesive material and therefore also fails to teach the limitation of the adhesive material increments on both sides of a pleat.

Applicant also asserts that Kahler fails to show a pleat flank having “a single plane” or “singularly planar configuration,” as required by Applicant’s claim limitation. The filter material of the Kahler reference utilizes embossments as spacers. Since the embossments [13] are made formed from the filter element material, the pleat flank does not have a single plane but instead has multiple planes inclusive of the embossed spacer elements [13].

Accordingly, Applicant asserts that the Examiner has failed to show each element of the claimed invention and therefore also failed to make a prima facie showing of obviousness.

Inoperability/Teaches Away

Applicant asserts that the combination of Muller and Kahler would be inoperable and/or the references teach away from the claimed invention. The Examiner is respectfully reminded of the discussion of *Adams* in the Supreme Court decision *KSR*, which describes, “The Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” (*KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ; 127 S.Ct. 1727, 1741 (2007), citing *U.S. v. Adams*, 383 U.S. 39

(1966)). Muller teaches that the upstream side of the filtering media must be open, without obstruction of a spacer device. This is taught for purpose of providing a specific profile for the filter pleat for easy cleaning of filter cake from the filter material beginning at column 2, line 58-column 3, line 16. As currently claimed, the instant invention requires increments of adhesive material on both sides of the pleat flank. Muller teaches away from such claimed construction and the Examiner's modification would render the Muller device inoperable. The Kahler reference teaches embossed spacers on each side of the pleat flank, and therefore would also render the Muller device inoperable. In either event, Muller teaches away from the Kahler and the instant invention so that Muller would be rendered inoperable if altered as suggested by the Examiner.

Additionally, the claimed invention teaches away from the Kahler reference and may render Kahler inoperable if modified according to the claims. As previously asserted, the claimed invention requires that the spacer increments be formed of an adhesive material. Contrary to these teachings, the Kahler reference, at column 4, line 19, describes that the adhesive have a constant thickness, which is minimal compared to the height of the elevations. Additionally, at column 5, line 6, Kahler teaches that for filtering performance it is beneficial if the smallest possible surface of the filter material is covered with the adhesive. Despite these explicit teachings, the Examiner utilizes Kahler to provide a device with a plurality of adhesive spacing elements despite the fact that Kahler teaches that the adhesive use should be minimal to improve the Kahler filter performance.

Additionally, Muller teaches that the spacer elements are flat and therefore are said to be dimensionally stable. For a discussion of the flat spacers, the Examiner is directed to Column 3, lines 25-42 where the flat spacer, with or without protuberances, is said to be of simple construction and design for economic construction. To the contrary, Kahler teaches a plurality tapered, embossed spacers [13]. Moreover, the adhesive portions [16] between the spacers are dimensionally unstable and tapered to match that of the spacers [13]. Applicant therefore asserts that modification of the Muller teachings in a way commensurate with Kahler is improper where Muller clearly requires dimensionally stable spacers and Kahler teaches unstable tapered types spacers. Such combination would render either of the references inoperable.

For at least the reasons set forth herein, the Applicant respectfully submits that the cited references fails to render obvious independent claims 36 and 62, and any claim depending therefrom. Thus, the Applicant respectfully requests that this rejection be withdrawn.

New Claim

Applicant has added new claim 64. Applicant distinguishes the prior art. Claim 64 requires at least one adhesive spacer on an upstream side of said filter media between successive pleat flanks and said downstream side to be free of adhesive spacers. This configuration teaches away from the teachings of Muller and would render the Muller configuration inoperable. The claim also requires that each of the pleat flanks be embossment-free. This limitation teaches away from Kahler which utilizes embossments to form the spacer elements.

Conclusion

The Applicant respectfully submits that the application is in condition for allowance, and reconsideration and notice of allowance are respectfully requested. If the Examiner believes that prosecution might be advanced by discussing the application with the Applicant's counsel, in person or over the telephone, the Applicant's counsel would welcome the opportunity to do so.

Respectfully submitted,

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